

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

WALLIS et al

Atty. Ref.: 124-890

National Phase of Int'l Appln. No. PCT/GB00/00951 Group:

(Filed: 15 March 2000)

Examiner:

For: METHOD AND APPARATUS FOR THE ANALYSIS OF MATERIAL  
COMPOSITION

\* \* \* \* \*

September 14, 2001

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

**PRELIMINARY AMENDMENT**

Please amend the above-identified application as follows:

**IN THE CLAIMS**Please cancel without prejudice claims 1-34 and add newly written claims 35-70 as  
follows:

35. (New) A method of determining the relative amounts of different chemical elements  $E_1$  to  $E_n$  in the chemical composition of a crystalline semiconductor material, the method comprising diffracting a beam of radiation off said crystalline material and measuring the angle of at least one diffraction peak and the intensity of a portion of the diffracted radiation integrated over a portion of said at least one diffraction peak located at said diffraction angle, and using a processor to determine the relative amounts of the elements  $E_1$  to  $E_n$  in the chemical